

Appl. No. 10/710,851
Amdt dated: November 1, 2005
Reply to Office action of August 11, 2005

REMARKS

The examiner has objected to the apparent omission of the word "and" in Claims 15 and 18. Appropriate correction has been made. In addition, in claim 15 "said first condition" in line 4 has been changed to -- a second condition --. Similar language was originally presented in claim 18. Claim 18 has been made dependant from claim 12, while claim 15 has been made dependant from claim 14. It is believed that this order correctly provides appropriate additional limitations in the series of dependant claims.

Claims 1-23 are rejected under 35 USC 103(a) over Prince (5,178,603) in view of Lyle et al. (5,956,023). Furthermore, the examiner has raised a non-statutory double patenting rejection with respect to U.S. Patent 6,497,674 both alone and further in view of Patent 5,941,842. In view of the amendments to the claims, Applicants respectfully traverse this latter ground for rejection. As explained below, the amended claims distinguish over the art with regards to features related to the simultaneous display of error conditions. These features are not claimed in either the '674 or '842 patents. To the extent that the amended claims are related to the claims of a parent case, applicants respectfully direct the examiner's attention to the immediate parent case, now U.S. Patent 6,790,195. In that case, however, the claims were subject to a restriction requirement. It is respectfully submitted that the present claims, as amended, retain the distinction over the claims of the '195 patent which resulted in the examiner's restriction requirement (apparatus initiated error checking as distinguished from operator initiated error checking) while also distinguishing over the art on features not claimed in the '674 or '842 patents. The rejection on the grounds of non-statutory double patenting should, therefore, be reconsidered and withdrawn.

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The claims pending in the case, as amended, are directed to an aspect of problem detection or correction. Under the amended claims, the apheresis system detects and prompts the operator to the presence of a problem condition. The operator interface then displays a plurality of conditions, each condition having at least one remedial action, and the operator then selects the condition and associated remedial action. Thus, in the presence of an abnormal condition detected by the apparatus, the operator is quickly presented with a range of options from which to select the appropriate response.

Neither Prince ('603) nor Lyle et al. ('023) describe simultaneous display of selectable error conditions. For example, in Prince ('603) detection of an error condition is shown in both Fig. 5 and Fig. 6, and the response is described in column 20, lines 22-26 and lines 53-57. In both instances, detection of the error condition results only in an emergency shut down.

Lyle et al. ('023) limits and constrains the selection of error conditions as explained beginning in column 15, line 11 "C. Abnormal Operational Conditions". In Lyle, the condition manager, a part of the apheresis system, identifies abnormal functional or operational states (col. 15, lines 32-38). The device then sets a warning or alarm status for which a single course of response is specified. Only the specified condition may be dealt with at a single time. As the '023 patent states: "... The alarm/note fields 88 and 92 relate only to a single alarm or note condition at the same time. There are never multiple displays of these fields at a given time, even when multiple Create_Alarm#_Display and/or Create_Note#Display commands are received." (Col. 17, lines 59-63) Multiple alarms are stacked and are handled on a first-in, first-out basis.

Although Lyle ('023) allows programming flexibility with respect to ordinary operation of the apheresis system, it is very specific as to abnormal operational

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conditions. When the operator detects an abnormal condition, Lyle makes no provision for the display of multiple potential abnormal conditions or problems from which the operator can then rapidly select. When the system detects an abnormal condition or operation, Lyle ('023) constrains the response both in type of response and in temporal ordering of the response.

As explained theretofore, the operator interface then displays a plurality of conditions, each condition having at least one remedial action. The word "simultaneously" emphasizes that the operator is presented with a set from which a selection can be made, as shown, for example, in Figures 40 and 42. As applicants have explained previously, the operator then selects the condition and associated remedial action. Thus, in the presence of an abnormal condition, the operator is quickly presented with a range of options from which to select the appropriate response.

In the parent case of this application, now US Patent 6,790,195, the examiner suggested that Lyle '023 showed an operator interface manager having positions on the top right and left sides and the bottom center positions of the status region for the alarm and note fields (88/90/92) as shown in Figure 16. Applicants respectfully suggest that in Lyle, the three mentioned regions or symbols appear in response to a single condition. Button 88 is an alarm button that flashes red or yellow depending on the type of problem detected by the machine. Button 90 appears at the same time as button 88, and allows the operator to turn off an audible alarm, but does not identify a different or independently selectable condition. Finally, text field 92 specifically identifies the problem detected by the machine. All three of these identifiers, therefore, point to a single condition. See specifically, Col. 17, line 59-67. These three areas do not present the operator with alternative conditions from which a selection can be made, as shown, for example, in Fig. 40 ("blood", "moisture", "no leak") of Fig. 42 ("spillover", "air in plasma line", "other

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problem"). In Lyle, if one selects button 90, the audible alarm goes off for a time. Text field 92 is informational. After one has attempted to correct the condition identified by the three screen symbols 88, 90 and 92 and as further identified by text block field 100, button 88 may re-test for the identified condition. The operator does not select among possible conditions. Independent Claims 1, 12, and 21 and their dependent claims should, therefore, be allowed.

New claim 24 emphasizes the extended nature of the choices being presented to the operator. Thus, a first set of conditions is displayed from which the operator may select. Subsequently, a second set of conditions may be displayed, in response to a prompting from the operator. This is illustrated in Fig. 42, wherein the operator may select "Other Problem 920", and obtain a further list of suggestions for identifying the actual condition that needs to be resolved.

Lyle does not disclose this technique of presenting a list of possible error conditions from which the operator is invited to select. Applicants respectfully re-emphasize that Lyle ('023) explicitly teaches that only one alarm or note condition should be displayed at one time: "... the alarm/note fields 88 and 92 relate only to a single alarm or note condition at the same time." (Col. 17, 1 59-61.)

It is respectfully submitted that applicants have disclosed and claimed a different and more flexible response to detected abnormal operational conditions in apheresis systems. To derive applicants' invention from Lyle ('023), one would have to ignore the teaching of Lyle ('023) that abnormal conditions are to be addressed in a strictly hierarchical manner.

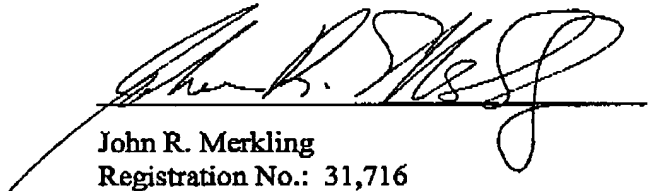
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Applicants respectfully submit that amended claims 1-23 and new claim 24 distinguish over Prince ('603) in view of Lyle ('023). The examiner's reconsideration and allowance of the claims is respectfully solicited.

Respectfully submitted,

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Date



John R. Merkling
Registration No.: 31,716
Gambro, Inc.
10810 W. Collins Avenue
Lakewood, CO 8015
(303) 238-2362